Issuance Date: June 30, 2005
Effective Date: July 1, 2005
Expiration Date: June 30, 2010
Modification Date: March 17, 2006

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
WASTE DISCHARGE PERMIT No. WA0001546

State of Washington
DEPARTMENT OF ECOLOGY
Olympia, Washington 98504-7775

In compliance with the provisions of
The State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington
and
The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1251 et seq.
authorizes

TransAlta Centralia Generation L.L.C.
913 Big Hanaford Road
Centralia, WA 98531

Facility Location:	Receiving Water
Centralia Steam Plant 913 Big Hanaford Road Centralia, WA 98531	Hanaford Creek
	Discharge Location, Surface Water:
Water Body I.D. No.:	**Outfall 001**
WA-23 1043	Latitude: 46° 45' 55" N Longitude: 122° 51' 52" W
	Outfall 002
Industry Type:	Latitude: 46° 45' 27" N Longitude: 122° 51' 20" W
Steam Electric Generating Station	**Outfall 004**
	Latitude: 46° 45' 29" N
Discharge Location, to Ground	Longitude: 122° 52' 02" W
Section 25, Range 2W, Township 15N Section 30, Range 1W, Township 15N	**Outfall 005** Latitude: 46° 44' 57" N Longitude: 122° 50' 48" W

This is a NPDES Major facility
is authorized to discharge wastewater in accordance with the special and general conditions which follow.

Kelly Susewind, P.E., P.G.
Southwest Region Manager
Water Quality Program
Washington State Department of Ecology

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SUMMARY OF PERMIT REPORT SUBMITTALS

Refer to the Special and General Conditions of this permit for additional submittal requirements.

Permit Section	Submittal	Frequency	First Submittal Date
S3.	Discharge Monitoring Report	Monthly	August 15, 2005
S4.A.	Operations and Maintenance Manual Update	1/permit cycle	February 1, 2009
S5.C	Solid Waste Control Plan	1/permit cycle	February 1, 2009
S6.B	Spill Plan (Integrated Contingency Plan)	1/permit cycle, updates submitted as necessary	February 1, 2009
S7.	Irrigation and Crop Management Report	1/year	April 1, 2006
S8.A.	Acute Toxicity Compliance Monitoring Reports	4/permit cycle	January 1, 2006 June 1, 2006 June 1, 2008 January 1, 2009
S9.	Chronic Toxicity Compliance Monitoring Reports	4/permit cycle	January 1, 2006 June 1, 2006 June 1, 2008 January 1, 2009
S10.	Effluent Mixing Study	1/permit cycle	December 15, 2006
G1.	Notice of Change in Authorization	As necessary	
G7.	Application for permit renewal	1/permit cycle	February 1, 2009

GENERAL CONDITIONS

S1. DISCHARGE LIMITATIONS

A. Process Wastewater Discharges to Surface Water

All discharges and activities authorized by this permit shall be consistent with the terms and conditions of this permit. The discharge of any of the following pollutants more frequently than, or at a concentration in excess of, that authorized by this permit shall constitute a violation of the terms and conditions of this permit.

Beginning on the effective date of this permit and lasting through the expiration date, the Permittee is authorized to discharge cooling water, process water, and sanitary effluent at the permitted location subject to meeting the following limitations:

OUTFALL TO CREEK

	EFFLUENT LIMITATIONS: OUTFALL # 001	
Parameter	**Average Monthly[a]**	**Maximum Daily[b]**
Total Chlorine Residual, mg/L	0.2 0	0.20
Flow, MGD	6.36	12.12
Oil and Grease, mg/L	15	20
Oil and Grease, visual	No Visible Sheen	No Visible Sheen
Total Suspended Solids, mg/L	30	100
pH Range, Standard Units	6 to 10	6 to 10
Chromium, mg/L	0.20	0.20
Zinc, mg/L	1.0	1.0
Dissolved Oxygen, mg/L	Minimum 8.0 mg/L	N/A
Temperature. °C	18° C when background[d] is less than 18° C. Background plus 0.3° C when background is greater than 18° C. no increase more than 28° C divided by background temperature plus 7.	18º C when background[d] is less than 18º C. Background plus 0.3º C when background is greater than 18º C. no increase more than 28º C divided by background temperature plus 7.
Turbidity, (NTU)	5 NTU over background[d] when background is less than 50 NTU. Maximum 10% increase over background when background is over 50 NTU.	5 NTU over background[d] when background is less than 50 NTU. Maximum 10% increase over background when background is over 50 NTU
Priority Pollutants[c] less chromium and zinc, mg/L	Zero	Zero

[a] The average monthly effluent limitation is defined as the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. If only one sample is taken during the calendar month, the average daily effluent limitation applies to that sample.

[b] The maximum daily effluent limitation is defined as the highest allowable daily discharge. The daily discharge means the discharge of a pollutant measured during a calendar day. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day.
[c] Priority Pollutants are defined as the list of substances shown in Appendix A of 40 CFR 423.
[d.] Background is upstream of the outfall, the reading is downstream of the outfall.

The sampling point for Outfall 001 shall be in the parshall flume where the discharge of the treatment ponds drops in to Hanaford Creek, unless the limit is stated as an increase over background.

OUTFALL TO DITCH FROM SANITARY SEWAGE TREATMENT PLANT

	EFFLUENT LIMITATIONS: OUTFALL # 002	
Parameter	**Average Monthly[a]**	**Maximum Daily[b]**
Flow, MGD	0.020	0.036
BOD_5, mg/L[d]	30	45
TSS, mg/L[c]	30	45
Fecal Coliform #/100ml[d]	200	400
pH Standard Units[d]	6 to 9	6 to 9
Total Chlorine Residual mg/L[d]	2.0	2.0

[a] The average monthly effluent limitation is defined as the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. If only one sample is taken during the calendar month, the average daily effluent limitation applies to that sample.
[b] The maximum daily effluent limitation is defined as the highest allowable daily discharge. The daily discharge means the discharge of a pollutant measured during a calendar day. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day.
[c.] The sampling point for TSS shall be just before the effluent enters the Oxidation Pond, at the V-Notch Weir in the clarifier section of the Sewage Treatment Plant.
[d.] The sampling point for BOD_5, Fecal Coliform, pH and Chlorine Residual shall be at the outlet of the oxidation pond.

B. Process Water Discharges to Ground

Beginning on the effective date of this permit and lasting through the expiration date, the Permittee is authorized to discharge cooling water, process water and sanitary effluent to land through spray irrigation at rates in the irrigation report attached to the permit application on the following designated irrigation lands:

Approximately 61 acres located approximately 7 miles south of the city of Tenino, 31/2 miles east of the intersection of State Highway 507 and Big Hanaford Road in Section 25, Range 2W, Township 15N and Section 30, Range 1W, Township 15 N.

C. Groundwater Quality Criteria

Table 1: Groundwater Quality Criteria

MONITORING WELL AFT 313 AND DOWNGRADIENT WELLS IN LIA (IF INSTALLED)

Parameter	Effluent Limitation Maximum Daily
pH	6.5 to 8.5 standard units
Total Coliform Bacteria	1 Colony/100 mL
Total Dissolved Solids	500 mg/L
$NO_3 + NO_2$ -N	10 mg/L
Total Nitrogen	10 mg/L
Chloride	250 mg/L
Fluoride	4 mg/L
Sulfate	250 mg/L
Barium (Total)	1.0 mg/L
Cadmium (Total)	0.010 mg/L
Chromium (Total)	0.050 mg/L
Copper (Total)	1.0 mg/L
Lead (Total)	0.010 mg/L
Mercury (Total)	0.002 mg/L
Selenium (Total)	0.010 mg/L
Silver (Total)	0.050 mg/L
Zinc (Total)	5.0 mg/L
Chloroform	0.007 mg/L
Toxics	No toxics in toxic amounts

S2. MONITORING REQUIREMENTS

A. Monitoring Schedule, Outfall 001

Category	Parameter	Units	Sample Point	Minimum Sampling Frequency	Sample Type
Wastewater Effluent	Flow	MGD	Outfall 001	Daily	Instantaneous Metered & Recorded
Wastewater Effluent	Oil and Grease, Visual	Presence or Absence	Outfall 001	Daily	Visual
Wastewater Effluent	Oil and Grease	mg/L	Outfall 001	Twice Annually[1]	Grab
Wastewater Effluent	TSS	mg/L	Outfall 001	Twice monthly	Grab
Wastewater Effluent	TDS	mg/L	Outfall 001	Twice monthly	Grab
Wastewater Effluent	pH	Standard Units	Outfall 001	Twice monthly	Grab
Wastewater Effluent	D.O.	mg/L	Outfall 001	Twice monthly	Grab
Wastewater Effluent	Chloride, dissolved	mg/L	Outfall 001	Monthly	Grab
Wastewater Effluent	Arsenic	mg/L	Outfall 001	Annually[2]	Grab
Wastewater Effluent	Cadmium	mg/L	Outfall 001	Annually[2]	Grab
Wastewater Effluent	Lead	mg/L	Outfall 001	Annually[2]	Grab
Wastewater Effluent	Mercury	mg/L	Outfall 001	Annually[2]	Grab
Wastewater Effluent	Selenium	mg/L	Outfall 001	Annually[2]	Grab
Wastewater Effluent	Silver	mg/L	Outfall 001	Annually[2]	Grab
Wastewater Effluent	Chromium	mg/L	Outfall 001	Annually[2]	Grab
Wastewater Effluent	Zinc	mg/L	Outfall 001	Annually[2]	Grab
Wastewater Effluent	Chlorine Residual	mg/L	Outfall 001	Twice Monthly	Grab

Category	Parameter	Units	Sample Point	Minimum Sampling Frequency	Sample Type
Wastewater Effluent	Temperature	°C	Outfall 001	Twice Monthly	Grab
Wastewater Effluent	Turbidity	NTU	Outfall 001	Twice Monthly	Grab
Wastewater Effluent	Priority Pollutants less chromium and zinc	mg/L	Outfall 001	Once per permit cycle[3]	Grab
[1] Twice annually is defined as monitoring in June and December of each year and reporting as usual.					
[2] Annually is defined as monitoring in December of each year and reporting as usual.					
[3]With application for permit renewal					

B. Monitoring Schedule, Outfall 002

Category	Parameter	Units	Sample Point	Minimum Sampling Frequency	Sample Type
Wastewater Effluent	Flow	gpd	Outfall 002	Daily	Instantaneous
Wastewater Effluent	BOD5	mg/L	Outfall 002	Twice monthly	Grab
Wastewater Effluent	TSS	mg/L	Outfall 002	Twice monthly	Grab
Wastewater Effluent	Fecal Coliform	#/100ml	Outfall 002	Twice monthly	Grab
Wastewater Effluent	Chlorine Residual	mg/L	Outfall 002	Twice monthly	Grab
Wastewater Effluent	pH	Standard Units	Outfall 002	Twice monthly	Grab

C. Wastewater Monitoring, Spray Fields, Outfall 004

The sampling point for the effluent from the above ground treatment works will be at the North Effluent Pond pump discharge prior to discharging into the sprayfields.

The Permittee shall monitor the wastewater according to the following schedule:

Parameter	**Units**	**Sample Point**	**Sampling Frequency**	**Sample Type**
Flow	MGD	004	Monthly	Meter

Parameter	Units	Sample Point	Sampling Frequency	Sample Type
BOD_5	mg/L	004	Monthly	Grab
TSS	mg/L	004	Monthly	Grab
Ph	Standard Units	004	Monthly	Grab
TKN (as N)	mg/L	004	Monthly	Grab
NH_3 (as N)	mg/L	004	Monthly	Grab
NO_3 (as N)	mg/L	004	Monthly	Grab
NO_2 (as N)	mg/L	004	Monthly	Grab
Total-P (as P)	mg/L	004	Monthly	Grab
Temperature	°C	004	Monthly	Grab
Fecal Coliform Bacteria	#/100 ml	004	Monthly	Grab
Chloride	mg/L	004	Monthly	Grab
Fluoride	mg/L	004	Monthly	Grab
Sulfate	mg/L	004	Monthly	Grab
Iron (Total)	mg/L	004	Monthly	Grab
Manganese (Total)	mg/L	004	Monthly	Grab
Arsenic (Total)	mg/L	004	Monthly	Grab
Boron	mg/L	004	Monthly	Grab
Cadmium (Total)	mg/L	004	Monthly	Grab
Chromium (Total)	mg/L	004	Monthly	Grab
Lead (Total)	mg/L	004	Monthly	Grab
Mercury (Total)	mg/L	004	Monthly	Grab
Selenium (Total)	mg/L	004	Monthly	Grab
Silver (Total)	mg/L	004	Monthly	Grab
Zinc (Total)	mg/L	004	Monthly	Grab
Chloroform	mg/L	004	Monthly	Grab
Total Organic Carbon	mg/L	004	Monthly	Grab

D. Warm Weather Ditch Monitoring

Parameter	Units	Sample Point	Sampling Frequency	Sample Type
Flow	MGD	005	Monthly	Measured
Temperature	ºC	005	Monthly	Grab
Oil and Grease	mg/L	005	Monthly	Grab
Oil and Grease	visual	005	Monthly	Grab

E. Ground Water Monitoring

1. The sampling points for ground water well monitoring will be the following monitoring wells:

Monitoring Well	Latitude	Longitude
AFT313	46° 45' 23″	121º 51′ 59″
AKS200	46° 47' 15″	121º 51′ 45 ″
Two Wells on the LIA Irrigation Area.	To be determined	To be determined

The results for well AKS200 will represent groundwater quality up gradient of the Lower Irrigation Area. The results from the two new monitoring wells will represent the groundwater quality down gradient of the Lower Irrigation Area. The results from well AFT313 will represent groundwater quality down gradient of the Upper and West Irrigation Areas.

2. The Permittee shall monitor the ground water monitoring wells according to the following schedule:

Parameter	Units	Monitoring Well	Sampling Frequency	Sample Type
Water Level	Feet	Each Operational	Quarterly[1]	Field Measurement
Ferrous Iron	Present /Absent	Each Operational	Quarterly[1]	Field Measurement
pH	Standard Units	Each Operational	Quarterly[1]	Field Measurement
Temperature	ºC	Each Operational	Quarterly[1]	Field Measurement
Conductivity	Micromho/cm	Each Operational	Quarterly[1]	Field Measurement

Parameter	Units	Monitoring Well	Sampling Frequency	Sample Type
Dissolved Oxygen	mg/L	Each Operational	Quarterly[1]	Field Measurement
Total Coliform Bacteria	#/100 ml	Each Operational	Quarterly[1]	Grab
Total Dissolved Solids	mg/L	Each Operational	Quarterly[1]	Grab
Total Organic Carbon	mg/L	Each Operational	Quarterly[1]	Grab
TKN (as N)	mg/L	Each Operational	Quarterly[1]	Grab
NH_3-N	mg/L	Each Operational	Quarterly[1]	Grab
NO_3+NO_2-N	mg/L	Each Operational	Quarterly[1]	Grab
Total Nitrogen (Calculated)[2]	mg/L	Each Operational	Quarterly[1]	Grab
Orthophosphate	mg/L	Each Operational	Quarterly[1]	Grab
Chloride	mg/L	Each Operational	Quarterly[1]	Grab
Sulfate	mg/L	Each Operational	Quarterly[1]	Grab
Arsenic (Total)	mg/L	Each Operational	Quarterly[1]	Grab
Barium (Total)	mg/L	Each Operational	Quarterly[1]	Grab
Cadmium (Total)	mg/L	Each Operational	Quarterly[1]	Grab
Chromium (Total)	mg/L	Each Operational	Quarterly[1]	Grab
Lead (Total)	mg/L	Each Operational	Quarterly[1]	Grab
Mercury (Total)	mg/L	Each Operational	Quarterly[1]	Grab
Selenium (Total)	mg/L	Each Operational	Quarterly[1]	Grab
Silver (Total)	mg/L	Each Operational	Quarterly[1]	Grab
Copper (Total)	mg/L	Each Operational	Quarterly[1]	Grab
Iron (Total)	mg/L	Each Operational	Quarterly[1]	Grab
Manganese (Total)	mg/L	Each Operational	Quarterly[1]	Grab
Zinc (Total)	mg/L	Each Operational	Quarterly[1]	Grab
Chloroform	mg/L	Each Operational	Quarterly[1]	Grab

Parameter	Units	Monitoring Well	Sampling Frequency	Sample Type
Calcium	mg/L	Each Operational	Quarterly[1]	Grab
Magnesium	mg/L	Each Operational	Quarterly[1]	Grab
Sodium	mg/L	Each Operational	Quarterly[1]	Grab
Potassium	mg/L	Each Operational	Quarterly[1]	Grab
Carbonate	mg/L	Each Operational	Quarterly[1]	Grab
Bicarbonate	mg/L	Each Operational	Quarterly[1]	Grab
[1]Quarterly is defined as January-March, April-June, July-September, and October-December. Report on the March, June, September, and December DMRs.				
[2]Total Nitrogen=TKN+(NO_3+NO_2-N)				

3. The sampling points for ground water seepage point will be the following seepage points:

Monitoring Well	Latitude	Longitude
GWS1	46° 45' 03″	121° 52′ 26″
GWS2	46° 44' 55″	121° 52′ 19 ″
GWS3	46° 45' 14″	121° 52′ 05″
GWS4	46° 45' 06″	121° 51′ 51″

The GWS is intended to represent ambient near-surface groundwater quality GWS1, GWS3, and GWS 4 represent near-surface groundwater quality from the application areas

4. The Permittee shall monitor the ground water seepage points according to the following schedule:

Parameter	Units	Monitoring Well	Sampling Frequency	Sample Type
Ferrous Iron	Present /Absent	Each Operational	4 times per year[1]	Field Measurement
pH	Standard Units	Each Operational	4 times per year[1]	Field Measurement
Temperature	°C	Each Operational	4 times per year[1]	Field Measurement
Conductivity	Micromho/cm	Each Operational	4 times per year[1]	Field Measurement

Dissolved Oxygen	mg/L	Each Operational	4 times per year[1]	Field Measurement
Total Dissolved Solids	mg/L	Each Operational	4 times per year[1]	Grab
Total Organic Carbon	mg/L	Each Operational	4 times per year[1]	Grab
TKN (as N)	mg/L	Each Operational	4 times per year[1]	Grab
NH_3-N	mg/L	Each Operational	4 times per year[1]	Grab
NO_3+NO_2-N	mg/L	Each Operational	4 times per year[1]	Grab
Total Nitrogen (Calculated)[2]	mg/L	Each Operational	4 times per year[1]	Grab
Orthophosphate	mg/L	Each Operational	4 times per year[1]	Grab
Chloride	mg/L	Each Operational	4 times per year[1]	Grab
Sulfate	mg/L	Each Operational	4 times per year[1]	Grab
Arsenic (Total)	mg/L	Each Operational	4 times per year[1]	Grab
Barium (Total)	mg/L	Each Operational	4 times per year[1]	Grab
Cadmium (Total)	mg/L	Each Operational	4 times per year[1]	Grab
Chromium (Total)	mg/L	Each Operational	4 times per year[1]	Grab
Lead (Total)	mg/L	Each Operational	4 times per year[1]	Grab
Mercury (Total)	mg/L	Each Operational	4 times per year[1]	Grab
Selenium (Total)	mg/L	Each Operational	4 times per year[1]	Grab
Silver (Total)	mg/L	Each Operational	4 times per year[1]	Grab
Copper (Total)	mg/L	Each Operational	4 times per year[1]	Grab
Iron (Total)	mg/L	Each Operational	4 times per year[1]	Grab
Manganese (Total)	mg/L	Each Operational	4 times per year[1]	Grab
Zinc (Total)	mg/L	Each Operational	4 times per year[1]	Grab
Chloroform	mg/L	Each Operational	4 times per year[1]	Grab
[1] Winter period, two samples between November 1st and March 1st and irrigation season, two samples between July 1st and October 1st. Report on the March and October DMRs.				
[2] Total Nitrogen=TKN+(NO_3+NO_2-N)				

F. Sampling and Analytical Procedures

Samples and measurements taken to meet the requirements of this permit shall be representative of the volume and nature of the monitored parameters, including representative sampling of any unusual discharge or discharge condition, including bypasses, upsets and maintenance-related conditions affecting effluent quality.

Sampling and analytical methods used to meet the water and wastewater monitoring requirements specified in this permit shall conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 Code of Federal Regulations (CFR) Part 136 or to the latest revision of *Standard Methods for the Examination of Water and Wastewater* (APHA), unless otherwise specified in this permit or approved in writing by the Department of Ecology (Department).

G. Flow Measurement

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the quantity of monitored flows. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements are consistent with the accepted industry standard for that type of device. Frequency of calibration shall be in conformance with manufacturer's recommendations and at a minimum frequency of at least one calibration per year. Calibration records shall be maintained for at least three years.

H. Laboratory Accreditation

All monitoring data required by the Department shall be prepared by a laboratory registered or accredited under the provisions of, *Accreditation of Environmental Laboratories*, Chapter 173-50 Washington Administrative Code (WAC). Flow, temperature, settleable solids, conductivity, pH, and internal process control parameters are exempt from this requirement. Conductivity and pH shall be accredited if the laboratory must otherwise be registered or accredited. The Department exempts crops, soils, and hazardous waste data from this requirement pending accreditation of laboratories for analysis of these media by the Department.

S3. REPORTING AND RECORDKEEPING REQUIREMENTS

The Permittee shall monitor and report in accordance with the following conditions. The falsification of information submitted to the Department shall constitute a violation of the terms and conditions of this permit.

A. Reporting

The first monitoring period begins on the effective date of the permit. Monitoring results shall be submitted monthly. Monitoring data obtained during the previous month shall be summarized and reported on a form provided, or otherwise approved, by the Department, and be postmarked or received no later than the 15th day of the month following the completed monitoring period, unless otherwise specified in this permit. The report(s) shall be sent to:

Industrial Unit Permit Coordinator
Department of Ecology

Southwest Regional Office
P.O. Box 47775
Olympia, Washington 98504-7775.

All lab reports providing data for organic and metal parameters shall include the following information: sampling date, sample location, date of analysis, parameter name, CAS number, analytical method/ number, method detection limit (MDL), lab practical quantitation limit (PQL), reporting units and concentration detected.

Discharge Monitoring Report forms must be submitted monthly whether or not the facility was discharging. If there was no discharge or the facility was not operating during a given monitoring period for each outfall, submit the form as required with the words "no discharge" entered in place of the monitoring results.

B. Records Retention

The Permittee shall retain records of all monitoring information for a minimum of three years. Such information shall include all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by the Director.

C. Recording of Results

For each measurement or sample taken, the Permittee shall record the following information: (1) the date, exact place, method, and time of sampling or measurement; (2) the individual who performed the sampling or measurement; (3) the dates the analyses were performed; (4) who performed the analyses; (5) the analytical techniques or methods used; and (6) the results of all analyses.

D. Additional Monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by this permit using test procedures specified by Condition S2 of this permit, then the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Permittee's self-monitoring reports.

E. Noncompliance Notification

In the event the Permittee is unable to comply with any of the permit terms and conditions due to any cause, the Permittee shall:

1. Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the non compliance, correct the problem and, if applicable, repeat sampling and analysis of any non compliance immediately and submit the results to the Department within 30 days after becoming aware of the violation;

2. Immediately notify the Department of the failure to comply; and

3. Submit a detailed written report to the Department within 30 days (five days for upsets and bypasses), unless requested earlier by the Department. The report shall contain a description of the non compliance, including exact dates and times, and if the non compliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the non compliance

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

F. Maintaining a Copy of This Permit

A copy of this permit must be kept at the facility and be made available upon request to the Department inspectors.

S4. OPERATION AND MAINTENANCE

The Permittee shall, at all times, properly operate and maintain all facilities or systems of treatment and control (and related appurtenances) which are installed to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, which are installed by a Permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

A. Operations and Maintenance Manual

An Operations and Maintenance (O&M) Manual shall be prepared by the Permittee in accordance with WAC 173-240-150. The O&M Manual submitted with the permit application is accepted. An updated O&M Manual shall be submitted with the application for permit renewal by **February 1, 2009**.

The approved Operations and Maintenance Manual shall be kept available at the permitted facility and all operators are responsible for being familiar with, and using the Manual.

The O&M Manual shall include:

1. Emergency procedures for plant shutdown and cleanup in event of wastewater system upset or failure;

2. Plant maintenance procedures;

3. The sanitary treatment plant process control monitoring schedule.

A treatment System Operating Plan (TSOP) shall be submitted to the Department as the initial chapter of the updated O&M Manual. This chapter shall be entitled the "Treatment System Operating Plan." For the purposes of this NPDES, A TSOP is a concise summary of specifically defined elements of the O&M Manual. The TSOP shall not conflict with the O&M Manual & shall include the following information:

1. A baseline operating condition which describes the operating parameters and procedures used to meet the effluent limitations of S1 at the production levels used in developing these limitations.

2. In the event of production rates which are below the baseline levels used to establish these limitations, the plan shall describe the operating procedures and conditions needed to maintain design treatment efficiency. The monitoring and reporting shall be described in the plan.

3. In the event of an upset, due to plant maintenance activities, severe stormwater events, start ups or shut downs, or other causes, the plan shall describe the operating procedures and conditions employed to mitigate the upset. The monitoring and reporting shall be described in the plan.

4. A description of any regularly scheduled maintenance or repair activities at the facility which would affect the volume or character of the wastes discharged to the wastewater treatment system and a plan for monitoring and treating/controlling the discharge of maintenance-related materials (such as cleaners, degreasers, solvents, etc.).

B. Bypass Procedures

Bypass, which is the intentional diversion of waste streams from any portion of a treatment facility, is prohibited, and the Department may take enforcement action against a Permittee for bypass unless one of the following circumstances (1, 2, or 3) is applicable:

1. Bypass for Essential Maintenance without the Potential to Cause Violation of Permit Limits or Conditions.

   Bypass is authorized if it is for essential maintenance and does not have the potential to cause violations of limitations or other conditions of this permit, or adversely impact public health as determined by the Department prior to the bypass. The Permittee shall submit prior notice, if possible, at least 10 days before the date of the bypass.

2. Bypass Which is Unavoidable, Unanticipated, and Results in Noncompliance of this Permit.

   The bypass is permitted only if:

   a. Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonable be expected to occur in the absence of a bypass.

   b. There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment downtime (but not if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative

maintenance), or transport of untreated wastes to another treatment facility.

c. The Department is properly notified of the bypass as required in Condition S3.E of this permit.

3. Bypass which is Anticipated and has the Potential to Result in Noncompliance of this permit.

The Permittee shall notify the Department at least 30 days before the planned date of bypass. The notice shall contain (1) a description of the bypass and its cause; (2) an analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing; (3) a cost-effectiveness analysis of alternatives including comparative resource damage assessment; (4) the minimum and maximum duration of bypass under each alternative; (5) a recommendation as to the preferred alternative for conducting the bypass; (6) the projected date of bypass initiation; (7) a statement of compliance with State Environmental Policy Act (SEPA); (8) a request for modification of water quality standards as provided for in WAC 173-201A-110, if an exceedance of any water quality standard is anticipated; and (9) steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.

For probable construction bypasses, the need to bypass is to be identified as early in the planning process as possible. The analysis required above shall be considered during preparation of the engineering report or facilities plan and plans and specifications and shall be included to the extent practical. In cases where the probable need to bypass is determined early, continued analysis is necessary up to and including the construction period in an effort to minimize or eliminate the bypass.

The Department will consider the following prior to issuing an administrative order for this type bypass:

a. If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of this permit.

b. If there are feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.

c. If the bypass is planned and scheduled to minimize adverse effects on the public and the environment.

After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, the Department will approve or deny the request. The public shall be notified and given an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Approval of a request to bypass will be by administrative order issued by the Department under RCW 90.48.120.

C. Irrigation Land Application

1. There shall be no runoff of wastewater applied to land by spray irrigation to any land not owned by or under control of the Permittee.

2. The Permittee shall use recognized good practices, and all available and reasonable procedures to control odors from the land application system. When notified by the Department, the Permittee shall implement measures to reduce odors to a reasonable minimum.

3. The wastewater shall not be applied to the irrigation lands in quantities that:

   a. Significantly reduce or destroy the long-term infiltration rate of the soil.

   b. Would cause long-term anaerobic conditions in the soil.

   c. Would cause ponding of wastewater and produce objectionable odors or support insects or vectors.

   d. Would cause leaching losses of constituents of concern beyond the treatment zone or in excess of the approved design. Constituents of concern are constituents in the wastewater, partial decomposition products, or soil constituents that would alter ground water quality in amounts that would affect current and future beneficial uses.

4. The Permittee shall maintain all irrigation agreements for lands not owned for the duration of the permit cycle. Any reduction in irrigation lands by termination of any irrigation agreements may result in permit modification or revocation. The Permittee shall immediately inform the Department in writing of any proposed changes to existing agreements.

D. Duty to Mitigate

The Permittee is required to take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

S5. SOLID WASTE DISPOSAL

A. Solid Waste Handling

The Permittee shall handle and dispose of all solid waste material in such a manner as to prevent its entry into state ground or surface water.

B. Leachate

The Permittee shall not allow leachate from its solid waste material to enter state waters without providing all known, available and reasonable methods of treatment, nor allow such leachate to cause violations of the State Surface Water Quality Standards, Chapter 173-201A WAC, or the State Ground Water Quality Standards, Chapter 173-200 WAC. The Permittee shall apply for a permit or permit modification as may be required for such discharges to state ground or surface waters.

C. Solid Waste Control Plan

The Solid Waste Plan submitted with the permit application is accepted. The Permittee shall comply with the plan and any modifications thereof. The Permittee shall submit an update of the solid waste control plan with the application for permit renewal by **February 1, 2009**.

S6. SPILL PLAN (INTEGRATED CONTINGENCY PLAN)

A. Submitted Integrated Contingency Plan

The Integrated Contingency Plan submitted with the permit application is accepted. This plan shall be implemented.

B. Renewal Integrated Contingency Plan

The Permittee shall submit the latest update of the spill plan with the application for permit renewal by **February 1, 2009**.

S7. ANNUAL IRRIGATION AND CROP MANAGEMENT REPORT

The Permittee shall prepare and annual Irrigation and Crop Management Report. The report shall be submitted to the Department by **April 1st** of each year, starting **April 1, 2006**. The report shall generally conform to *"Guidelines for Preparation of Engineering Reports for Industrial Wastewater Land Application Systems,"* Ecology 1993 (Publication #93-36). The report shall describe the following information:

1 The rates and volumes of wastewater applied to each irrigation area on a monthly basis.

2 Wastewater water quality results for the spray field.

3 Water quality and water level results at monitoring wells and seepage stations.

4 As built drawings for all new monitoring well and seepage stations installed during the reporting period

5 An evaluation of the monitoring results and an assessment of the next year's application rates and a description of operational changes.

S8. ACUTE TOXICITY

A. Effluent Characterization

The Permittee shall conduct acute toxicity testing on the final effluent to determine the presence and amount of acute (lethal) toxicity. The two acute toxicity tests listed below shall be conducted on each sample taken for effluent characterization.

Effluent characterization for acute toxicity shall be conducted once in December 2005 and once in May 2006. A second set of acute toxicity characterizations will be conducted in May 2008 and once in December 2008 for submission with the permit renewal application.

Acute toxicity testing shall follow protocols, monitoring requirements, and quality assurance/quality control procedures specified in this section. A dilution series consisting of a minimum of five concentrations and a control shall be used to estimate the concentration lethal to 50 percent of the organisms (LC_{50}). The percent survival in 100 percent effluent shall also be reported.

Acute toxicity tests shall be conducted with the following species and protocols:

1. Fathead minnow, *Pimephales promelas* (96 hour static-renewal test, method: EPA/600/4-90/027F).

2. Daphnid, *Ceriodaphnia dubia*, *Daphnia pulex*, or *Daphnia magna* (48 hour static test, method: EPA/600/4-90/027F). The Permittee shall choose one of the three species and use it consistently throughout effluent characterization.

B. Effluent Limit for Acute Toxicity

The Permittee has an effluent limit for acute toxicity if, after completing the first set of acute toxicity characterizations:

1. The median survival of any species in 100 percent effluent is below 80 percent.

2. Any one test of any species exhibits less than 65 percent survival in 100 percent effluent.

If an effluent limit for acute toxicity is required by subsection B at the end of one year of effluent characterization, the Permittee shall immediately complete all applicable requirements in subsections C, D, and F.

If no effluent limit is required by subsection B at the end of one year of effluent characterization, then the Permittee shall complete all applicable requirements in subsections E and F.

The effluent limit for acute toxicity is no acute toxicity detected in a test concentration representing the acute critical effluent concentration (ACEC).

In the event of failure to pass the test described in subsection C. of this section for compliance with the effluent limit for acute toxicity, the Permittee is considered to be in compliance with all permit requirements for acute whole effluent toxicity as long as the requirements in subsection D. are being met to the satisfaction of the Department.

The ACEC means the maximum concentration of effluent during critical conditions at the boundary of the zone of acute criteria exceedance assigned pursuant to WAC 173-201A-100. The ACEC will be determined as a component of S10 EFFLUENT MIXING STUDY of this permit.

If the Permittee has an effluent limit for acute toxicity and the ACEC is not known, then effluent characterization for acute toxicity shall continue until the time an ACEC is known. Effluent characterization shall be continued until an ACEC has been determined and shall be performed using each one of the tests listed in subsection A on a rotating basis. When an ACEC has been determined, the Permittee shall immediately complete all applicable requirements in subsections C, D, and F.

If no effluent limit is required by subsection B at the end of one year of effluent characterization, then the Permittee shall stop effluent characterization and begin to conduct the activities in subsection E even if the ACEC is unknown.

C. Monitoring for Compliance With an Effluent Limit for Acute Toxicity

Monitoring to determine compliance with the effluent limit shall be conducted biannually for the remainder of the permit term using each of the species listed in subsection A on a rotating basis and performed using at a minimum 100 percent effluent, the ACEC, and a control. The Permittee shall schedule the toxicity tests in the order listed in the permit unless the Department notifies the Permittee in writing of another species rotation schedule. The percent survival in 100 percent effluent shall be reported for all compliance monitoring.

Compliance with the effluent limit for acute toxicity means no statistically significant difference in survival between the control and the test concentration representing the ACEC. The Permittee shall immediately implement subsection D if any acute toxicity test conducted for compliance monitoring determines a statistically significant difference in survival between the control and the ACEC using hypothesis testing at the 0.05 level of significance (Appendix H, EPA/600/4-89/001). If the difference in survival between the control and the ACEC is less than 10 percent, the hypothesis test shall be conducted at the 0.01 level of significance.

D. Response to Noncompliance With an Effluent Limit for Acute Toxicity

If the Permittee violates the acute toxicity limit in subsection B, the Permittee shall begin additional compliance monitoring within one week from the time of receiving the test results. This additional monitoring shall be conducted weekly for four consecutive weeks using the same test and species as the failed compliance test. Testing shall determine the LC_{50} and effluent limit compliance. The discharger shall return to the original monitoring frequency in subsection C after completion of the additional compliance monitoring.

If the Permittee believes that a test indicating noncompliance will be identified by the Department as an anomalous test result, the Permittee may notify the Department that the compliance test result might be anomalous and that the Permittee intends to take only one additional sample for toxicity testing and wait for notification from the Department before completing the additional monitoring required in this subsection. The notification to the Department shall accompany the report of the compliance test result and identify the reason for considering the

compliance test result to be anomalous. The Permittee shall complete all of the additional monitoring required in this subsection as soon as possible after notification by the Department that the compliance test result was not anomalous. If the one additional sample fails to comply with the effluent limit for acute toxicity, then the Permittee shall proceed without delay to complete all of the additional monitoring required in this subsection. The one additional test result shall replace the compliance test result upon determination by the Department that the compliance test result was anomalous.

If all of the additional compliance monitoring conducted in accordance with this subsection complies with the permit limit, the Permittee shall search all pertinent and recent facility records (operating records, monitoring results, inspection records, spill reports, weather records, production records, raw material purchases, pretreatment records, etc.) and submit a report to the Department on possible causes and preventive measures for the transient toxicity event which triggered the additional compliance monitoring.

If toxicity occurs in violation of the acute toxicity limit during the additional compliance monitoring, the Permittee shall submit a Toxicity Identification/Reduction Evaluation (TI/RE) plan to the Department. The TI/RE plan submittal shall be within sixty (60) days after the sample date for the fourth additional compliance monitoring test. If the Permittee decides to forgo the rest of the additional compliance monitoring tests required in this subsection because one of the first three additional compliance monitoring tests failed to meet the acute toxicity limit, then the Permittee shall submit the TI/RE plan within sixty (60) days after the sample date for the first additional monitoring test to violate the acute toxicity limit. The TI/RE plan shall be based on WAC 173-205-100(2) and shall be implemented in accordance with WAC 173-205-100(3).

E. Monitoring When There Is No Permit Limit for Acute Toxicity

The Permittee shall test final effluent as required in S8.A. above to submit with the application for permit renewal. All species used in the initial acute effluent characterization or substitutes approved by the Department shall be used, and results submitted to the Department as a part of the permit renewal application process.

F. Sampling and Reporting Requirements

1. All reports for effluent characterization or compliance monitoring shall be submitted in accordance with the most recent version of Department of Ecology Publication # WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria* in regards to format and content. Reports shall contain bench sheets and reference toxicant results for test methods. If the lab provides the toxicity test data on floppy disk for electronic entry into the Department's database, then the Permittee shall send the disk to the Department along with the test report, bench sheets, and reference toxicant results.

2. Testing shall be conducted on grab samples. Grab samples must be shipped on ice to the lab immediately upon collection. If a grab sample is received at the testing lab within one hour after collection, it must have a temperature below 20° C at receipt. If a grab sample is received at the testing lab within 4 hours after collection, it must be below 12° C at receipt. All other samples must be below 8° C at receipt. The lab shall begin the toxicity testing as soon as possible but no later than 36 hours after sampling was ended. The lab shall store all samples at 4° C in the dark from receipt until completion of the test.

3. All samples and test solutions for toxicity testing shall have water quality measurements as specified in Department of Ecology Publication #WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria* or most recent version thereof.

4. All toxicity tests shall meet quality assurance criteria and test conditions in the most recent versions of the EPA manual listed in subsection A. and the Department of Ecology Publication #WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If test results are determined to be invalid or anomalous by the Department, testing shall be repeated with freshly collected effluent.

5. Control water and dilution water shall be laboratory water meeting the requirements of the EPA manual listed in subsection A or pristine natural water of sufficient quality for good control performance.

6. The whole effluent toxicity tests shall be run on an unmodified sample of final effluent.

7. The Permittee may choose to conduct a full dilution series test during compliance monitoring in order to determine dose response. In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the ACEC.

8. All whole effluent toxicity tests, effluent screening tests, and rapid screening tests that involve hypothesis testing and do not comply with the acute statistical power standard of 29 percent as defined in WAC 173-205-020 must be repeated on a fresh sample with an increased number of replicates to increase the power.

S9. CHRONIC TOXICITY

A. Effluent Characterization

The Permittee shall conduct chronic toxicity testing on the final effluent. The two, three chronic toxicity tests listed below shall be conducted on each sample taken for effluent characterization.

Effluent characterization for chronic toxicity shall be conducted once in December 2005 and once in May 2006. A second set of chronic toxicity

characterizations will be conducted in May 2008 and once in December 2008 for submission with the permit renewal application.

Chronic toxicity tests shall be conducted with the following two species and the most recent version of the following protocols:

Freshwater Chronic Toxicity Test Species		Method
Fathead minnow	*Pimephales promelas*	EPA/600/4-91/002
Water flea	*Ceriodaphnia dubia*	EPA/600/4-91/002

B. Effluent Limit for Chronic Toxicity

After completion of effluent characterization, the Permittee has an effluent limit for chronic toxicity if any test conducted under subsection A results in an NOEC less than the ACEC, or if any test shows a significant difference between the control and the ACEC at the 0.05 level of significance using hypothesis testing (Appendix H, EPA/600/4-89/001). The Permittee shall complete all applicable requirements in subsections C, D, and F upon determining that an effluent limit for chronic toxicity applies to the discharge.

If no test resulted in a NOEC less than the ACEC or if no significant difference is shown between the ACEC and the control in any of the chronic toxicity tests, the Permittee has no effluent limit for chronic toxicity and only subsections E and F apply.

The effluent limit for chronic toxicity is no toxicity detected in a test concentration representing the chronic critical effluent concentration (CCEC).

The CCEC means the maximum concentration of effluent allowable at the boundary of a mixing zone assigned pursuant to WAC 173-201A-100. The CCEC will be determined as a component of S10 EFFLUENT MIXING STUDY of this permit.

C. Monitoring for Compliance With an Effluent Limit for Chronic Toxicity

Monitoring to determine compliance with the effluent limit shall be conducted biannually for the remainder of the permit term using each of the species listed in subsection A above on a rotating basis and performed using at a minimum the CCEC, the ACEC, and a control. The Permittee shall schedule the toxicity tests in the order listed in the permit unless the Department notifies the Permittee in writing of another species rotation schedule.

Compliance with the effluent limit for chronic toxicity means no statistically significant difference in response between the control and the test concentration representing the CCEC. The Permittee shall immediately implement subsection D if any chronic toxicity test conducted for compliance monitoring determines a

statistically significant difference in response between the control and the CCEC using hypothesis testing at the 0.05 level of significance (Appendix H, EPA/600/4-89/001). If the difference in response between the control and the CCEC is less than 20 percent, the hypothesis test shall be conducted at the 0.01 level of significance.

In order to establish whether the chronic toxicity limit is eligible for removal from future permits, the Permittee shall also conduct this same hypothesis test (Appendix H, EPA/600/4-89/001) to determine if a statistically significant difference in response exists between the ACEC and the control.

D. Response to Noncompliance With an Effluent Limit for Chronic Toxicity

If a toxicity test conducted for compliance monitoring under subsection C determines a statistically significant difference in response between the CCEC and the control, the Permittee shall begin additional compliance monitoring within one week from the time of receiving the test results. This additional monitoring shall be conducted monthly for three consecutive months using the same test and species as the failed compliance test. Testing shall be conducted using a series of at least five effluent concentrations and a control in order to be able to determine appropriate point estimates. One of these effluent concentrations shall equal the CCEC and be compared statistically to the nontoxic control in order to determine compliance with the effluent limit for chronic toxicity as described in subsection C. The discharger shall return to the original monitoring frequency in subsection C after completion of the additional compliance monitoring.

If the Permittee believes that a test indicating noncompliance will be identified by the Department as an anomalous test result, the Permittee may notify the Department that the compliance test result might be anomalous and that the Permittee intends to take only one additional sample for toxicity testing and wait for notification from the Department before completing the additional monitoring required in this subsection. The notification to the Department shall accompany the report of the compliance test result and identify the reason for considering the compliance test result to be anomalous. The Permittee shall complete all of the additional monitoring required in this subsection as soon as possible after notification by the Department that the compliance test result was not anomalous. If the one additional sample fails to comply with the effluent limit for chronic toxicity, then the Permittee shall proceed without delay to complete all of the additional monitoring required in this subsection. The one additional test result shall replace the compliance test result upon determination by the Department that the compliance test result was anomalous.

If all of the additional compliance monitoring conducted in accordance with this subsection complies with the permit limit, the Permittee shall search all pertinent and recent facility records (operating records, monitoring results, inspection records, spill reports, weather records, production records, raw material purchases, pretreatment records, etc.) and submit a report to the Department on

possible causes and preventive measures for the transient toxicity event which triggered the additional compliance monitoring.

If toxicity occurs in violation of the chronic toxicity limit during the additional compliance monitoring, the Permittee shall submit a Toxicity Identification/Reduction Evaluation (TI/RE) plan to the Department. The TI/RE plan submittal shall be within sixty (60) days after the sample date for the third additional compliance monitoring test. If the Permittee decides to forgo the rest of the additional compliance monitoring tests required in this subsection because one of the first two additional compliance monitoring tests failed to meet the chronic toxicity limit, then the Permittee shall submit the TI/RE plan within sixty (60) days after the sample date for the first additional monitoring test to violate the chronic toxicity limit. The TI/RE plan shall be based on WAC 173-205-100(2) and shall be implemented in accordance with WAC 173-205-100(3).

E. Monitoring When There Is No Permit Limit for Chronic Toxicity

The Permittee shall test final effluent according to the schedule in S9A above for inclusion in the application for permit renewal. All species used in the initial chronic effluent characterization or substitutes approved by the Department shall be used and results submitted to the Department as a part of the permit renewal application process.

F. Sampling and Reporting Requirements

1. All reports for effluent characterization or compliance monitoring shall be submitted in accordance with the most recent version of Department of Ecology Publication #WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria* in regards to format and content. Reports shall contain bench sheets and reference toxicant results for test methods. If the lab provides the toxicity test data on floppy disk for electronic entry into the Department's database, then the Permittee shall send the disk to the Department along with the test report, bench sheets, and reference toxicant results.

2. Testing shall be conducted on grab samples. Composite samples taken for toxicity testing shall be cooled to 4 degrees Celsius while being collected and shall be sent to the lab immediately upon completion. Grab samples must be shipped on ice to the lab immediately upon collection. If a grab sample is received at the testing lab within one hour after collection, it must have a temperature below 20° C at receipt. If a grab sample is received at the testing lab within 4 hours after collection, it must be below 12° C at receipt. All other samples must be below 8° C at receipt. The lab shall begin the toxicity testing as soon as possible but no later than 36 hours after sampling was ended. The lab shall store all samples at 4° C in the dark from receipt until completion of the test.

3. All samples and test solutions for toxicity testing shall have water quality measurements as specified in Department of Ecology Publication #WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria* or most recent version thereof.

4. All toxicity tests shall meet quality assurance criteria and test conditions in the most recent versions of the EPA manual listed in subsection A. and the Department of Ecology Publication #WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If test results are determined to be invalid or anomalous by the Department, testing shall be repeated with freshly collected effluent.

5. Control water and dilution water shall be laboratory water meeting the requirements of the EPA manual listed in subsection A or pristine natural water of sufficient quality for good control performance.

6. The whole effluent toxicity tests shall be run on an unmodified sample of final effluent.

7. The Permittee may choose to conduct a full dilution series test during compliance monitoring in order to determine dose response. In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the ACEC and the CCEC.

8. All whole effluent toxicity tests, effluent screening tests, and rapid screening tests that involve hypothesis testing, and do not comply with the chronic statistical power standard of 39 percent as defined in WAC 173-205-020, must be repeated on a fresh sample with an increased number of replicates to increase the power.

S10 EFFLUENT MIXING STUDY

A. General Requirements

The Permittee shall determine the degree of effluent and receiving water mixing which occurs within the mixing zone (as defined in permit condition S1.B). The degree of mixing shall be determined during critical conditions, as defined in WAC 173-201A-020 Definitions-"Critical Condition," or as close to critical conditions as reasonably possible.

The critical condition scenarios shall be established in accordance with *Guidance for Conducting Mixing Zone Analyses* (Ecology, 1996). The dilution ratio shall be measured in the field with dye using study protocols specified in the *Guidance,* section 5.0 "Conducting a Dye Study," as well as other protocols listed in subpart C. Protocols. The use of mixing models is an acceptable alternative or adjunct to a dye study if the critical ambient conditions necessary for model input are known or will be established with field studies; and if the diffuser is visually inspected for integrity or has been recently tested for performance by the use of tracers. The

Guidance mentioned above shall be consulted when choosing the appropriate model. The use of models is also required if critical condition scenarios that need to be examined are quite different from the set of conditions present during the dye study.

Validation (and possibly calibration) of a model may be necessary and shall be done in accordance with the *Guidance* mentioned above - in particular subsection 5.2 "Quantify Dilution." The resultant dilution ratios for acute and chronic boundaries shall be applied in accordance with directions found in Ecology's *Permit Writer's Manual* (Ecology publication 92-109, most current version) - in particular Chapter VI.

A Plan of Study shall be submitted to the Department for review 30 days prior to initiation of the effluent mixing study.

B. Reporting Requirements

If the Permittee has information on the background physical conditions or background concentration of chemical substances (for which there are criteria in Chapter 173-201A WAC) in the receiving water, this information shall be submitted to the Department as part of the Effluent Mixing Report.

The results of the effluent mixing study shall be included in the Effluent Mixing Report, which shall be submitted to the Department for approval no later than November 15, 2005.

If the results of the mixing study, toxicity tests, and chemical analysis indicate that the concentration of any pollutant(s) exceeds or has a reasonable potential to exceed the State Water Quality Standards, Chapter 173-201A WAC, the Department may issue a regulatory order to require a reduction of pollutants or modify this permit to impose effluent limitations to meet the Water Quality Standards.

The Permittee shall use some method of fixing and reporting the location of the outfall and mixing zone boundaries (i.e., triangulation off the shore, microwave navigation system, or using Loran or Global Positioning System (GPS) coordinates). The method of fixing station location and the actual station locations shall be identified in the report.

C. Protocols

The Permittee shall determine the dilution ratio using protocols outlined in the following references, approved modifications thereof, or by another method approved by the Department:

-Akar, P.J. and G.H. Jirka, *Cormix2: An Expert System for Hydrodynamic Mixing Zone Analysis of Conventional and Toxic Multiport Diffuser Discharges*, USEPA Environmental Research Laboratory, Athens, GA, Draft, July 1990.

-Baumgartner, D.J., W.E. Frick, P.J.W. Roberts, and C.A. Bodeen, *Dilution Models for Effluent Discharges,* USEPA, Pacific Ecosystems Branch, Newport, OR, 1993.

-Doneker, R.L. and G.H. Jirka, *Cormix1: An Expert System for Hydrodynamic Mixing Zone Analysis of Conventional and Toxic Submerged Single Port Discharges,* USEPA, Environmental Research Laboratory, Athens, GA. EPA/600-3-90/012, 1990.

-Ecology, *Permit Writer's Manual*, Water Quality Program, Department of Ecology, Olympia WA 98504, July 1994, including most current addenda.

-Ecology, *Guidance for Conducting Mixing Zone Analyses*, Permit Writer's Manual, (Appendix 6.1), Water Quality Program, Department of Ecology, Olympia WA 98504, October, 1996.

-Kilpatrick, F.A., and E.D. Cobb, Measurement of Discharge Using Tracers, Chapter A16, *Techniques of Water-Resources Investigations of the USGS, Book 3, Application of Hydraulics,* USGS, U.S. Department of the Interior, Reston, VA, 1985.

-Wilson, J.F., E.D. Cobb, and F.A. Kilpatrick, Fluorometric Procedures for Dye Tracing, Chapter A12, *Techniques of Water-Resources Investigations of the USGS, Book 3, Application of Hydraulics,* USGS, U.S. Department of the Interior. Reston, VA, 1986

GENERAL CONDITIONS

G1. SIGNATORY REQUIREMENTS

All applications, reports, or information submitted to the Department shall be signed and certified.

A. All permit applications shall be signed by either a responsible corporate officer of at least the level of vice president of a corporation, a general partner of a partnership, or the proprietor of a sole proprietorship.

B. All reports required by this permit and other information requested by the Department shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above and submitted to the Department.

2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

C. Changes to authorization. If an authorization under paragraph B.2 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph B.2 above must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.

D. Certification. Any person signing a document under this section shall make the following certification:

> I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

G2. RIGHT OF INSPECTION AND ENTRY

The Permittee shall allow an authorized representative of the Department, upon the presentation of credentials and such other documents as may be required by law:

A. To enter upon the premises where a discharge is located or where any records must be kept under the terms and conditions of this permit.

B. To have access to and copy - at reasonable times and at reasonable cost - any records required to be kept under the terms and conditions of this permit.

C. To inspect - at reasonable times - any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.

D. To sample or monitor - at reasonable times - any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

G3. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated either at the request of any interested person (including the Permittee) or upon the Department's initiative. However, the permit may only be modified, revoked and reissued, or terminated for the reasons specified in 40 CFR 122.62, 122.64 or WAC 173-220-150 according to the procedures of 40 CFR 124.5.

A. The following are causes for terminating this permit during its term, or for denying a permit renewal application:

1. Violation of any permit term or condition.

2. Obtaining a permit by misrepresentation or failure to disclose all relevant facts.

3. A material change in quantity or type of waste disposal.

4. A determination that the permitted activity endangers human health or the environment or contributes to water quality standards violations and can only be regulated to acceptable levels by permit modification or termination [40 CFR Part 122.64(3)].

5. A change in any condition that requires either a temporary or permanent reduction or elimination of any discharge or sludge use or disposal practice controlled by the permit [40 CFR Part 122.64(4)].

6. Nonpayment of fees assessed pursuant to RCW 90.48.465.

7. Failure or refusal of the permittee to allow entry as required in RCW 90.48.090.

B. The following are causes for modification but not revocation and reissuance except when the permittee requests or agrees:

1. A material change in the condition of the waters of the state.

2. New information not available at the time of permit issuance that would have justified the application of different permit conditions.

3. Material and substantial alterations or additions to the permitted facility or activities which occurred after this permit issuance.

4. Promulgation of new or amended standards or regulations having a direct bearing upon permit conditions, or requiring permit revision.

5. The Permittee has requested a modification based on other rationale meeting the criteria of 40 CFR Part 122.62.

6. The Department has determined that good cause exists for modification of a compliance schedule, and the modification will not violate statutory deadlines.

7. Incorporation of an approved local pretreatment program into a municipality's permit.

C. The following are causes for modification or alternatively revocation and reissuance:

1. Cause exists for termination for reasons listed in A1 through A7, of this section, and the Department determines that modification or revocation and reissuance is appropriate.

2. The Department has received notification of a proposed transfer of the permit. A permit may also be modified to reflect a transfer after the effective date of an automatic transfer (General Condition G8) but will not be revoked and reissued after the effective date of the transfer except upon the request of the new permittee.

G4. REPORTING PLANNED CHANGES

The Permittee shall, as soon as possible, but no later than 60 days prior to the proposed changes, give notice to the Department of planned physical alterations or additions to the permitted facility, production increases, or process modification which will result in: 1) the permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b); 2) a significant change in the nature or an increase in quantity of pollutants discharged; or 3) a significant change in the Permittee's sludge use or disposal practices. Following such notice, and the submittal of a new application or supplement to the existing application, along with required engineering plans and reports, this permit may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

G5. PLAN REVIEW REQUIRED

Prior to constructing or modifying any wastewater control facilities, an engineering report and detailed plans and specifications shall be submitted to the Department for approval in accordance with Chapter 173-240 WAC. Engineering reports, plans, and specifications shall be submitted at least 180 days prior to the planned start of construction unless a shorter time is approved by the Department. Facilities shall be constructed and operated in accordance with the approved plans.

G6. COMPLIANCE WITH OTHER LAWS AND STATUTES

Nothing in this permit shall be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G7. DUTY TO REAPPLY

The Permittee shall apply for permit renewal by **February 1, 2009**.

G8. TRANSFER OF THIS PERMIT

In the event of any change in control or ownership of facilities from which the authorized discharge emanate, the Permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Department.

A. Transfers by Modification

Except as provided in paragraph B below, this permit may be transferred by the Permittee to a new owner or operator only if this permit has been modified or revoked and reissued under 40 CFR 122.62(b)(2), or a minor modification made under 40 CFR 122.63(d), to identify the new Permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

B. Automatic Transfers

This permit may be automatically transferred to a new Permittee if:

1. The Permittee notifies the Department at least 30 days in advance of the proposed transfer date.

2. The notice includes a written agreement between the existing and new Permittee's containing a specific date transfer of permit responsibility, coverage, and liability between them.

3. The Department does not notify the existing Permittee and the proposed new Permittee of its intent to modify or revoke and reissue this permit. A modification under the subparagraph may also be minor modification under 40 CFR 122.63. If this notice is not received, the transfer is effective on the date specified in the written agreement.

G9. REDUCED PRODUCTION FOR COMPLIANCE

The Permittee, in order to maintain compliance with its permit, shall control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

G10. REMOVED SUBSTANCES

Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall not be resuspended or reintroduced to the final effluent stream for discharge to state waters.

G11. DUTY TO PROVIDE INFORMATION

The Permittee shall submit to the Department, within a reasonable time, all information which the Department may request to determine whether cause exists for modifying, revoking and reissuing,

or terminating this permit or to determine compliance with this permit. The Permittee shall also submit to the Department upon request, copies of records required to be kept by this permit.

G12. OTHER REQUIREMENTS OF 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G13. ADDITIONAL MONITORING

The Department may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G14. PAYMENT OF FEES

The Permittee shall submit payment of fees associated with this permit as assessed by the Department.

G15. PENALTIES FOR VIOLATING PERMIT CONDITIONS

Any person who is found guilty of willfully violating the terms and conditions of this permit shall be deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to $10,000 and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit shall incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to $10,000 for every such violation. Each and every such violation shall be a separate and distinct offense, and in case of a continuing violation, every day's continuance shall be deemed to be a separate and distinct violation.

G16. UPSET

Definition – "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that: 1) an upset occurred and that the Permittee can identify the cause(s) of the upset; 2) the permitted facility was being properly operated at the time of the upset; 3) the Permittee submitted notice of the upset as required in condition S3.E; and 4) the Permittee complied with any remedial measures required under S4.C of this permit.

In any enforcement proceeding the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G17. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

G18. DUTY TO COMPLY

The Permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

G19. TOXIC POLLUTANTS

The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G20. PENALTIES FOR TAMPERING

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this Condition, punishment shall be a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four years, or by both.

G21. REPORTING ANTICIPATED NON-COMPLIANCE

The Permittee shall give advance notice to the Department by submission of a new application or supplement thereto at least 180 days prior to commencement of such discharges, of any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility or activity which may result in noncompliance with permit limits or conditions. Any maintenance of facilities, which might necessitate unavoidable interruption of operation and degradation of effluent quality, shall be scheduled during non-critical water quality periods and carried out in a manner approved by the Department.

G22. REPORTING OTHER INFORMATION

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

G23. REPORTING REQUIREMENTS APPLICABLE TO EXISTING MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURAL DISCHARGERS

The Permittee belonging to the categories of existing manufacturing, commercial, mining, or silviculture must notify the Department as soon as they know or have reason to believe:

A. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following “notification levels:”

1. One hundred micrograms per liter (100 µg/L).

2. Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (mg/L) for antimony.

3. Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).

4. The level established by the Director in accordance with 40 CFR 122.44(f).

B. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following "notification levels:"

1. Five hundred micrograms per liter (500µg/L).

2. One milligram per liter (mg/L) for antimony.

3. Ten times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).

4. The level established by the Director in accordance with 40 CFR 122.44(f).

G24. COMPLIANCE SCHEDULES

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.